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Central Washington University

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# SCHOLARSHIP·IN·REVIEW

THE MAGAZINE OF RESEARCH & SCHOLARLY ACTIVITIES AT CENTRAL WASHINGTON UNIVERSITY



"Roller Coaster" by Dan Rice, Detail.

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# SCHOLARSHIP • IN • REVIEW

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## A Message From Graduate Studies & Research

As a public comprehensive university, Central Washington University faculty are actively fulfilling their roles in research and scholarly activities in a broad range of disciplines and specialty areas. Many of these results appear in scholarly journals or as books from major publishers. In **Scholarship • In • Review** we try to publish faculty work that can be read by the lay person without extensive technical background. In this issue we are publishing the work of faculty from the Departments of Art, Business Administration, and English.

Professor Majumdar's analysis of the effects of cigarette advertising and pricing on the incidence of smoking provides a strong argument against the conventional wisdom that banning advertising would reduce the sale and consumption of cigarettes. His research analysis brings helpful understanding of an important social issue.

Professor Dunning's analysis of painting presents a fascinating discussion for understanding the linguistic and illusionistic aspects of painting. He has carefully documented the priorities of the linguistic aspects of painting.

Professor Halperin's article presents the pure and creative efforts of a poet at work. He has received national recognition for his poetry, and indeed, internationally as he expects to be on a Fulbright appointment in the USSR this fall in Riga, the capital of Latvia.

In my 20 years of service as dean at CWU with all the opportunities I've had to compare our faculty with those at other universities throughout the world, it is clear that we have an outstanding faculty in the best sense--teaching faculty who enhance and support the teaching and learning processes with an active program of research and scholarship. I am personally very pleased and proud to have supported such activities over the years and to have published some of the faculty scholarship in **Scholarship • In • Review**.

Dale R. Comstock  
Dean of Graduate Studies & Research

## Pluralism and the Post-Cartesian Viewer: Linguistic vs. Illusionistic Aspects in Painting

By William V. Dunning and Dan Rice

Two and a half thousand years ago a Greek, named Pythagoras, introduced to Europe a unique view of reality based on mathematics, and this view lasted for three hundred years. This mathematical construct of truth was temporarily reawakened at the first of the Middle Ages, waned, then rediscovered by such men as: Copernicus, Kepler, Galileo, Descartes, and Newton. This new reality had been fully reimplemented by the end of the seventeenth century. We have now experienced another three hundred years or more of truth, mathematically revealed.

During the nineteenth century a host of new ideas such as non-Euclidean geometry and the fourth dimension began to offer a pluralism of alternatives to the reign of this "objective" math-based reality, and the Renaissance vision. Then Einstein, Planck, and Freud further changed our view of reality.

Stephen Toulmin--professor of the philosophy of science at the

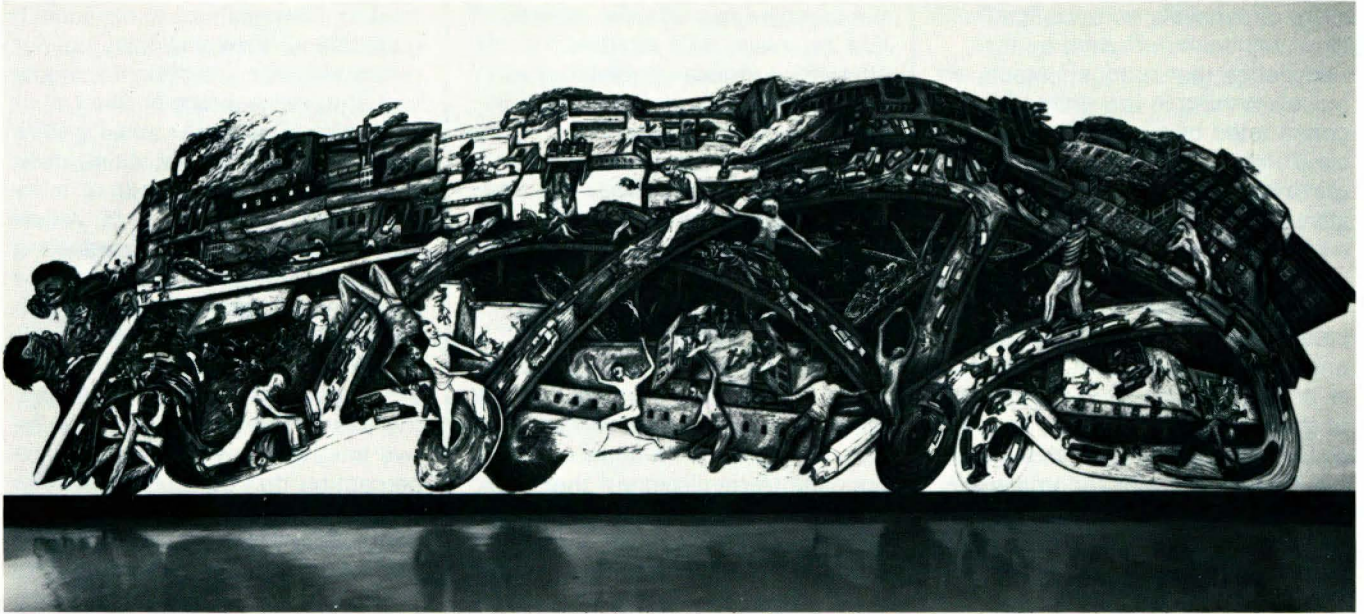
University of Chicago--has explained that the crucial difference between modern science and postmodern science arises from their divergent views of the meaning and the application of "objectivity." Philosophers like Heidegger and Habermas, Toulmin reminds us, have warned of the tendency for modern science and technology to attempt to objectively analyze and conclude "facts" about people and things in the same mode, as if the behavior of both were equally predictable. This practice gives rise to the perhaps deserved reputation of science and technology as dehumanizers, because they ignore the importance of subjective feelings and values (Toulmin 111).

By extending Toulmin's direction, we might reason that the postmodernist, whether scientist or artist, reconstructs his search for what he once believed to be the only objective truth to more nearly resemble a question: "What can we make of this?" (113). A "truth" in postmodern scientific or aesthetic theories more nearly resembles the truth "of portraits, which aim at being faithful, just, or 'unmisleading' likenesses" (Toulmin 113). Such a scientific and aesthetic "portrait" of reality tends to subordinate inflexible mathematics to new techniques of rational objectivity. This rational objectivity must now be mitigated by personal judgment, feeling, and perhaps justice, creating an intimate synthesis of logic tempered by a discriminating conscience.

Dampier reminded us in 1966

**William V. Dunning, Professor of Art has taught drawing, painting, and art history at Central Washington University since 1964. This article consists of edited selections from three chapters of his book, *Changing Images of Pictorial Space: A History of Spatial Illusion in Painting* (435 pages, 42 illustrations), which is scheduled to be released by Syracuse University Press in May, 1990.**

**Dan Rice, BA (painting, Central Washington University), MFA (painting, University of California at Davis). This young painter is enjoying a successful career in New York and has recently bought a farm just outside the city where he lives and paints. As an undergraduate, he studied painting with the author.**



**"Roller Coaster" (1985-86) by Dan Rice. Oil on panel (144" x 465").**

that mathematics are not in our scheme of the world naturally; mathematics does not exist, even in physics, until we put them there (492). There is continuing evidence that the thoughts of people of many societies may be structured in a manner similar to ours, and the "success of the operations whereby mathematics can be introduced depends on the extent to which our experiences can be related to each other" (Dampier 491-92). Discoveries in physics are pursued today by means of peculiarly split methods; Newton's classical physics still yields valuable results but the most striking discoveries depend more on ideas of relativity and quanta (Dampier 494-95).

It seems that we use Newtonian theory "on Mondays, Wednesdays and Fridays, and the quantum theory on Tuesdays, Thursdays and Saturdays" (Dampier 495). This schismatic tendency appears to some extent whenever an important intellectual revolution is in process, such as during the sixteenth century when Aristotelian concepts of qualities and essences were challenged by Galileo's more Platonic ideas of quantities that were measurable by mathematics.

But our society seems to illustrate this tendency in an extreme form: "It may possibly even allow us to hold a third set of ideas on Sundays" (Dampier 495).

The quantity of our knowledge has been doubling regularly in the last half of the twentieth century, but Suzi Gablik reasons, in *Progress in Art*, that scientific and artistic progress are not achieved by adding more detail or accumulating more knowledge within existing categories or paradigms; progress, she contends, "is made by leaps into new categories or systems" (*Progress* 159).

When, and in what way, might a new scientific "category or system" affect scientists, philosophers, or painters? We might already suspect that such a role could be played by quantum mechanics as it steadily intrudes into the public consciousness, or perhaps by the new theory of "super-strings." Natalie Angler explains, in *Time*, that this new construct insists that the subatomic building blocks of the universe are not pin-point particles as we had believed in the recent past; we might instead envision them as infinitesimally small

strings, some of which are open, and some of which are joined in a loop (57). These strings, like ancient Merlin, can become anything in the universe. They can represent any particle of matter, from quarks to electrons, according to how they turn and vibrate. How these particles interact determines which of the four forces of the universe is created (Angler 57).

This simple change in the heuristic construct of subatomic particles suddenly allows the conceptual unification of the four forces that we understand to be the cement of the universe. This theory unifies electromagnetism, gravity, the strong force (which holds the atomic nucleus together), and the weak force (which gradually pulls the unstable radioactive elements apart).

This combining of these four bonding forces of the universe into one elegant "theory of everything"--called TOE by physicists--demands no less than ten dimensions. If the discovery of a single new dimension (the fourth) in the nineteenth century freed the artist from restrictions imposed by the renaissance illusion, will the addition of six

more dimensions go unnoticed? How will we be affected by the knowledge that not just objects but everything in the universe is constructed of exactly the same clay? People, thoughts, pain, gravity, water, and electricity--all start as the same tiny strings, small and numerous beyond our grasp. Man can no longer be thought of--in the Renaissance paradigm--as the center of the universe; nor can he be envisioned as a minor distortion in the fabric of the universe. Man is no longer a distortion: he is, as the ecologists remind us, one with the universe, continuous and infinite.

There are no answers, but there seem to be a plethora of new questions. Are we, after experiencing another three hundred years of math based objectivity, beginning to question this construct once again? Are we entering a new Electric Middle Ages? A concept of reality based upon mathematics depends upon the acceptance of certain assumptions. We once assumed, for instance, that there was such a thing as a single objective truth, and what's more, that this undeniable truth could be discovered through mathematics. But did we, during the 1960s, begin to reject the monolithic objectivity of mathematical truth? Art in the Middle Ages was pluralistic and so is the art of the 1980s. Society no longer harbors monolithic values, opinions, or artistic styles. Gablik says if "modernism was ideological at heart--full of strenuous dictates about what art could, and could not, be--postmodernism is much more eclectic, able to assimilate, and even plunder, all forms of style and genre and circumstance, and tolerant of multiplicity and conflicting values" (*Modernism* 73).

Informed people in the last half of the twentieth century are inundated by an ever increasing flow of information: fragmented bits and pieces of an eternally changing puzzle that we venture to piece together in order to gain

fleeting glimpses of new realities. We are aware of a profusion of alternative modes of thinking, as no other people or civilization has ever been.

Clifford Geertz, well known for his essays in interpretive anthropology, points out that our society knows that the Hopi Indians saw the natural world in terms of events rather than objects. We know that Eskimos experience time as cyclic rather than serial (Geertz 161). And, I might add, we know that the Indochinese, in a manner directly opposite to ours, picture their future as lying behind them. As fatalists, they experience time like a movie film as if their life had already been filmed; thus, the past is that part that has already advanced through the projector. They perceive the past as residing in front of them while their future is perceived as situated behind them, ready to be shown. But we, on the other hand, consider that our life is being "filmed" as it happens. We view time as moving from the past, which lies behind us into the future ahead of us, the present being merely that moving limit between the two.

This abiding awareness of other patterns of consciousness extends our horizons and stimulates our imagination. Suzi Gablik holds that the ability to "recognize the existence of a plurality of perspectives, as one does in relativity, is to be already in some sense beyond all of them" (*Progress* 81). This awareness of other points of view shows us other realities and expands our consciousness in ways that have not been available to any other people since the beginning of man. Our reality, our thinking, our art, our science, and our world view are all eclectic. Our current concepts and ideas are littered with parts and pieces--some well petrified, some warm, and some still quivering--from other civilizations, past and present.

In *The Disappearance of God*, J. Hillis Miller follows this thinking still further, and tells us that

modern historical consciousness goes deeper than a simple awareness of a plurality of cultures and attitudes; we are burdened with the awareness that we will never discover "the right and true culture, the right and true philosophy or religion" (10). As the twentieth century progresses--especially after experiencing the breathtaking destruction by the use of new technologies during the First World War, and again on an even more breath-taking scale at the end of the Second World War--we are overwhelmed by the perception that our culture is contrived and unnatural and doomed to disappear, as have all great cultures in the past (Miller 11).

Believing our civilization will end in ruins, in pieces, "is also in some sense to think of it as already in pieces, for if it is so fragile, what real solidity does it have even now?" (Miller 11). Miller concludes that the opposition between "illusion" and the "desolation of reality" is the very essence of art. Reality is perceived as ugly and meaningless, and that which man has created by transforming the world into his own image, is fleeting illusion (Miller 11). We believe man's cultures are temporary: nothing but mist. We believe that "Love, honor, God himself exist, but only because someone believes in them;" man has made God his own creation (Miller 12).

Thus, our unique strength, our awareness of multiple viewpoints and our willingness to concede their validity, also becomes our primary dilemma. Not only are we aware of other realities as they exist in other societies, we are painfully aware of a multiplicity of points of view within our own society, within our own country. In such a pluralistic society--because we understand the legitimacy of other viewpoints--we cannot agree on the simplest questions of cause and effect, of what is significant or trivial, good or bad, right or wrong.

In such a society where we



cannot agree on the most fundamental questions--a society where we strike no agreement as to what is obscene, what is ethical, what is moral, or what is just--we are incapable of deciding what to allow, what to prohibit, and what to encourage. We understand too well that each side of every issue results in both desirable and undesirable consequences. In our righteous protection of individual liberties, we are incapable of deciding whether or not we should allow such things as the teaching of evolution in the school, pornography (even that which exploits children), gay rights, the proliferation of Nazi organizations, drugs in school lockers, date rape, and the segregation of AIDS patients. We needed no Tower of Babel to provoke a jealous God into scrambling our languages so as to dissipate our plans. In fact, on the contrary, it is our very ability to speak, translate, and have access to ideas from many other languages that has nurtured the knowledge of such a multiplicity of opposing, but equally valid, answers and solutions: none of which can ever be complete within itself.

Given such a variety of indecisions, how can we suddenly come to a firm resolution about something as elusive as what art should be? Art departments throughout our society cannot agree as to what skills and concepts art students should be taught in the last half of the twentieth century. Many professors still drill their students on linear perspective and shading techniques; and many students practice their craft by the painting of still-lives and nude models throughout their undergraduate studies. Other professors would contend that such training is tantamount to that of a science department that concentrated its efforts on teaching undergraduates the techniques of Ptolemaic astronomy. I maintain that the unified, monolithic system of Renaissance perspective implies or

constructs a Cartesian viewer which may have little relevance to today's pluralistic society.

Rene Descartes, during the seventeenth century, had demonstrated to the satisfaction of European societies that what we call "self" describes an inalienable nature that manifests either consciousness or spatial extension. He demonstrated that the concept of "self" describes an inalienable nature that involves at least one of the two following characteristics:

1) consciousness (awareness, feeling, and volition), or 2) extension, (three-dimensional extension and potential mobility in space).

Taking a cue and a slight left turn from David Carrier's position in "The Deconstruction of Perspective," I contend that traditional Renaissance perspective satisfies a Cartesian viewer who comprehends "self" as extension within the space of an external world which he presumes can be represented in a unified, "picture-like" construct.

Such a traditional notion of self leads to the creation of a two-dimensional image that egocentrically extends a scene that is unified by perspective and oriented to a single viewing location. Such traditional paintings imply a specific viewer location outside the painting because they firmly anchor the perspective of all the depicted objects to a single viewpoint. It might be said that such paintings "construct" their own viewers. Semiologists, such as Umberto Eco, speak in a similar manner of a written text constructing a reader. Eco contends that he used the first hundred pages of his novel, *The Name of the Rose*, "for the purpose of constructing a reader suitable for what comes afterward" (*Postscript to The*

*Name of the Rose* 48).

In this sense, the paintings of the Italian Renaissance, with their unified space and single viewer location, might be said to "construct" a Cartesian viewer; that is, the painting implies that it is to be "read" by a single viewer who stands in one specific location and visually extends his sense of self through a window-like transparent picture plane into the illusionistic pictorial space of the painting.<sup>1</sup>

But in our society, the abiding awareness of pluralistic realities--multiple points of view--makes us question the veracity of any world that can be fully depicted from a single viewpoint. The isolated self-sufficient Cartesian self seems to be an anachronism as we come to the close of the twentieth century. David Carrier writes: "our artists and critics replace that model of self and image with an account that may better reflect our beliefs" (27).

The postmodernist painter rejects the single viewpoint and unified perspective of the Renaissance. He uses multiple viewpoints to create what Leo Steinberg calls a "flatbed picture plane:" a fragmented picture plane with manifold perspectives which refuse to locate the viewer in any specific position or identity. Carrier maintains that the viewer's place outside the depicted space "is created by that sequence of visual choices, by the rhythm of activity" in which the viewer plans with the "perspectival instructions" that he receives from such a flatbed surface (28). The postmodernist picture plane "creates a more complex relation, viewer to image. No single point is defined as the right viewing point" (Carrier 28).

Leo Steinberg introduced the term "flatbed picture plane" in his 1972 book, *Other Criteria*, and he

<sup>1</sup>If the painting is conceived of as a stage-like construct, then the picture plane can be explained as the curtain that is drawn across the front of the stage. This curtain in Renaissance painting is transparent, allowing the viewer to see things behind it. This curtain, or picture plane, in modern and postmodern painting is opaque and the image is painted directly upon the curtain.

uses this term because it refers to the flatbed printing press, a horizontal bed that supports a printing surface (82). Steinberg maintains that this term describes the state of the picture plane after the 1950s, and his idea has been adopted by several writers to refer to: 1) a horizontal picture plane, and 2) a fragmented pluralistic spatial orientation that may be a characteristic of many postmodernist painters.

Even the cubists and the abstract expressionists, claims Steinberg, assumed that painting represented a Cartesian "world space" which suggested an erect human posture (82). Paintings which are inspired by the natural world evoke responses that are normally experienced in an erect posture with the viewer parallel to the picture plane. Therefore, the traditional picture plane "affirms verticality as its essential condition," whether its suggested space extends behind the picture plane, remains flat and congruent with it, or--I would add--appears to protrude in front of it (Steinberg 84).

Steinberg maintains that even the work of modernists such as de Kooning, Kline, Pollock, and Newman--even though they were attempting to break away from Renaissance perspective--was still oriented to a vertical plane and was still "addressed to us head to foot" because this is the form that is mandated by the concept of the vertical viewer. It is in this sense, Steinberg reasons, that the abstract expressionists were often referred to as nature painters. It is the change of reference from the vertical to the horizontal "flat bed picture plane" that marks the evolution from nature as muse, to culture as the painter's source of inspiration, because such paintings are more analogous to cultural operational processes than to anything in nature (84). Steinberg contends that it was the work of painters like Dubuffet, Johns, and Rauschenberg that changed the orientation of painting.

Though we still exhibit

postmodernist paintings vertically--in the same manner as we tack maps, plans, or horseshoes to the wall--Steinberg claims they no more insist or depend upon a vertical posture than does a tabletop, a chart, a studio floor, or any "receptor surface on which objects are scattered, on which data is entered, on which information may be received, printed, impressed--whether coherently or in confusion" (84). Steinberg declares that when Rauschenberg "seized his own bed, smeared paint on its pillow and quilt coverlet, and uprighted it against the wall," it constituted his "profoundest symbolic gesture" (89). And in *Realism, Writing, Disfiguration*, Michael Fried develops a convincing argument that depicting (or implying) such a horizontal surface in a painting suggests writing more than painting (passim).

But I am not entirely comfortable with this first portion of Steinberg's argument: the horizontal orientation of the picture plane. I do not see the evidence or the result in current paintings and I do not feel the theory is convincingly developed or argued. Certainly the pattern of paint--strokes, runs, and drips--on Rauschenberg's bed clearly indicates that it was first placed upright, then painted in that vertical position. It was not painted

and then placed upright, as Steinberg suggests. This, it seems to me, should disqualify Rauschenberg's bed since Steinberg does not hesitate to disqualify Pollock's paintings as examples of the flatbed picture plane, even though Pollock's work seems to assert no head or foot orientation (as the bed certainly does). Steinberg disqualifies Pollock's paintings because even though Pollock started his paintings as they lay on the horizontal floor, he tacked them to the wall to develop them further, thus he "lived with the painting in its uprighted state, as with a world confronting his human posture" (84).

Moreover, there are many possible reasons for Rauschenberg's choice of a bed as a work of art: one reason might well be a comment on Plato's well known painter's bed (three times removed.)<sup>2</sup> Another reason Rauschenberg, as well as other artists, such as Tapies, might have appropriated a bed to exhibit is that the bed, after years of service, assumes the shape of its occupant and perhaps implies or constructs the presence (even the Cartesian extension) of its absent owner.<sup>3</sup> Steinberg also fails to account for the numerous dome and ceiling paintings from the past that were oriented to a viewer--perpendicular, rather than parallel,

<sup>2</sup> Plato wrote that there were three creators of beds, or couches as Plato called them. The first was the perfect couch or the idea of couch created by God; the second was the actual couch fashioned by a craftsman; the third was the painter's imitation of a couch three times removed. Plato asks if, "The producer of the product three removes from nature you call the imitator" (*Rep. X*, 597, e)? He goes on to counsel that, if a man "had genuine knowledge of the things he imitates he would far rather devote himself to real things than to the imitation of them, and would endeavor to leave after him many noble deeds and works as memorials of himself, and would be more eager to be the theme of praise than the praiser" (*Rep. X*, 599, b). Perhaps Rauschenberg wished to exhibit a bed only once removed, to be the theme of praise rather than the praiser.

<sup>3</sup>This point could perhaps be developed further along the lines that it inverts the traditional propensity--according to Jacques Derrida, who gave us "deconstruction," the word and the strategy--for our language to privilege presence which thereby automatically implies absence. Derrida tells us often that our society privileges presence over absence: that our linguistic signifiers such as "cat," for instance, assert the presence of a cat more insistently than they imply "not dog" or "not horse." Thus, Derrida insists that "the deconstructive reading does not point out the flaws or weaknesses or stupidities of an author, but the *necessity* with which what he *does* see is systematically related to what he does *not* see (*Dissemination xv*). In the case of the beds, the absence of the owner of a used mattress tends to imply his presence rather than the traditional presence implying absence.

to the surface of the painting--who stands below and looks up at the work; nor does he include in his invoice the horizontal implications of Degas' worm's eye and bird's eye views, or the many photo montages of the 1920s and 1930s.

In spite of this particular inchoate segment of Steinberg's idea, he has nevertheless suggested a fourth kind of pictorial space and a new concept of the picture plane. This influential idea has been well discussed in the recent literature of art criticism and I think it should not escape mention in any complex discussion of pictorial space and illusion. Moreover, I believe the theory merits a more rigorous development.<sup>4</sup>

But the second portion of Steinberg's theory of the flatbed picture plane is of considerable interest to me and it seems to point out an important departure from Renaissance perspective. Rauschenberg laid his paintings flat, Steinberg insists, in order to impress several separate photographic transfers onto their surface. And Svetlana Alpers maintains, in agreement, that the fragmentation of the image that is characteristic of northern painting is also a characteristic of photographs.

Furthermore, each photograph was itself an illusion. But each of these illusions was oriented by its

own perspective to a separate viewer location. The painting, *Roller Coaster*, by Dan Rice, is more than forty feet long. Each section is drawn from a different point of view; sometimes even several of the figures in the same section are drawn from separate viewing points. This painting is designed to accommodate a single viewer at different moments in time as he walks the length of the painting stopping to view each separate section from a frontal position, or several viewers simultaneously. The painting is also designed to be viewed both from a distance as one entity and from close up as a series of fragmented scenes.

Like Dan Rice, many current painters tend to render their images in multiple perspectives: a series of fragmented Derridean apostrophes--rather than a cohesive central text--each in turn, turning away from the main body or text.<sup>5</sup> Thus each apostrophe refers--in a similar but more elaborate manner than the fragmented image of Greco-Roman painting--to a separate spectator and implies a pluralist rather than a single viewer. Steinberg says this pluralist orientation resulted in "a kind of optical noise:" the "waste and detritus of communication--like radio transmission with interference; noise and meaning on the same wavelength, visually on

the same flatbed plane" (88).

In order to maintain relationships between these fragmented images, Rauschenberg was obliged to conceive of his picture plane as a surface to which anything "reachable-thinkable" could be attached: his painting had to become whatever a billboard or a bulletin board is. If one of the photographs or collage elements created an unwanted illusion of depth, "the surface was casually stained or smeared with paint to recall its irreducible flatness" (Steinberg 88). Any kind of photograph or object can now be attached to the surface of a painting because such objects no longer represent a view of the world, but rather "a scrap of printed material" (Steinberg 88).

The integrity of the picture plane that had once relied upon the painter's competence to control the illusion is now an accepted "given." Flatness is no longer a problem requiring repeated proof. Painters are no longer obliged, as de Kooning was, to adjust each area until it is carefully resolved into homogeneous conformity with the over-all spatial 'voice' of the painting.<sup>6</sup> Steinberg suggests that the "all-purpose picture plane" has liberated postmodernist painting to pursue a more unpredictable course (88).

I do perceive in the work of postmodern painters less preoccupation with a careful adjustment of the illusion that was once needed to verify the actuality of the flat surface. We now know and accept the fact that the painting is flat, so it is no longer necessary to incessantly corroborate this real fact through illusion. I do not mean to say there is no concern with pictorial space and illusion; I merely wish to point out that his aspect now occupies a lower priority in the hierarchy of painterly concerns. The point of visual flatness--the opacity of the picture plane--has been adequately made. In the dualistic opposition of illusion and language, priorities have once again been inverted, for the time being, in favor of

<sup>4</sup>In *The Art of Describing*, Svetlana Alpers, for instance, demonstrates that "While Alberti's text on painting was all words with no illustrations, his northern counterparts offered, by contrast, annotated pictures. They offered a geometric way to transform the world onto a working surface without the intervention of viewer and picture plane, without, in other words, the invention of an Albertian picture" (53). Alpers observes that some important differences between northern and southern paintings are: "attention to many small things versus a few large ones; light reflected off objects versus objects modeled by light and shadow; the surface of objects, their colors and textures, dealt with rather than their placement in a legible space; an unframed image versus one that is clearly framed; one with no clearly situated viewer compared to one with such a viewer" (44). Alpers maintains that the northern tradition sacrifices a single possibility for "an aggregate of aspects" (59). Such differences are similar to a list of the differences between modern and postmodern art.

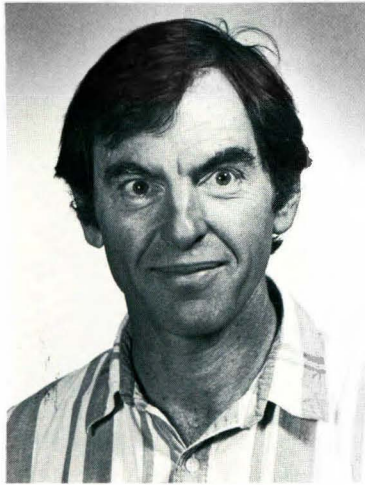
<sup>5</sup>In agreement with Jacques Derrida, I use the term "apostrophe" in the sense of a turning aside from the main text: a digression or a footnote. Thus, some of these paintings may be seen as an inversion of traditional priorities and hierarchies: a series of footnotes in place of the central text.

<sup>6</sup>The postmodern novel is no longer obliged to maintain a single voice or point of view, thus, the postmodern painting is also allowed a pluralistic point of view.

linguistic rather than the illusionistic aspects of painting.

## WORKS CITED

- Alpers, Svetlana. *The Art of Describing*. Chicago: U of Chicago P, 1983.
- Angler, Natalie. "Hanging the Universe on Strings." *Time* 13 Jan. 1986: 61-63.
- Carrier, David. "The Deconstruction of Perspective: Howard Buchwald's Recent Paintings." *Arts Magazine*. No. 60. October 1985: 26-29.
- Dampier, William Cecil. *A History of Science: and its Relations with Philosophy & Religion*. 1929. London: Cambridge UP, fourth edition, 1966.
- Derrida, Jacques. *Dissemination*. 1972. trans. Barbara Johnson. Chicago: U of Chicago P, 1981.
- Eco, Umberto. *Postscript to Name of the Rose*. 1983. trans. William Weaver. New York: Harcourt Brace, 1984.
- Fried, Michael. *Realism, Writing, Disfiguration*. Chicago: U of Chicago P, 1987.
- Gablik, Suzi. *Has Modernism Failed*. New York: Thames and Hudson, 1984.
- . *Progress in Art*. New York: Rizzoli, 1977.
- Geertz, Clifford. *Local Knowledge*. New York: Basic, 1983.
- Miller, J. Hillis. *The Disappearance of God. 1963. Cambridge: Harvard UP, 1975.*
- Plato. *Republic*. trans. Paul Shorey. *The Collected Dialogues of Plato*. 1938. Ed. Edith Hamilton and Huntington Cairns. Princeton: Princeton UP, eleventh printing, 1982.
- Steinberg, Leo. *Other Criteria: Confrontations with Twentieth-century Art*. New York: Oxford UP, 1972.
- Toulmin, Stephen. "The Construal of Reality: Criticism in Modern and Postmodern Science." *The Politics of Interpretation*. Ed. W.J.T. Mitchell. Chicago: U of Chicago P, 1983.



Mark Halperin is Professor of English. His poems have been published in many magazines including *Backroads* published by the University of Pittsburgh Press in 1976. *The Whitecoverlet*, a chapbook and *Gover*, a fine-printing edition, followed in 1979. *A Place Made Fast*, was published by Copper Canyon Press in 1982, and *The Measure of Islands* is to be published by Wesleyan University Press in 1990.

## Selected Poems

By Mark Halperin

### JOHN CLARE

Sometimes there is a man—  
I never feel him come,  
but he is who I am  
and I am someone.

He does not care to stay.  
If we are both John Clare  
why does he go away?  
and where? and where?

*Backroads* (University of Pittsburgh Press, 1976)

### A SONG OF THE AUTUMN

The clear wings of the mayflies  
turn to slate. You hear the cricket  
counting more slowly and a stillness  
amplify the sound. As you sit

a mushroom lifts its head. A pearl  
from a dim world clammers  
into this one. A dead stump  
sprouts with strangely soft flowers.

Deepening, the Autumn is its haze.  
The stray men you chance on  
as you travel the backroads, linger,  
talking with you through the afternoon.

Now if the frost destroys your garden  
and an innocent sadness should weigh  
on you like their forgotten names,  
you can accept it. You will say:

the world is not a human place  
though we live here. Now the shedding of the tree.  
Now the woodchuck crawling underground.  
You will not look for special mercy.

*Backroads* (University of Pittsburgh Press, 1976)

## TWO LINES FROM PAUL CELAN

At nightfall the sky was various  
blues and grays moving into each other.  
You drew the drapes then gathered  
with the others before the wireless,  
only you listening to the leaves  
fill like teacups. Then the war was over

and you lived in this foreign city  
where you have slipped on a raincoat  
and gone for the evening paper.  
Behind a warehouse, the yellow moon  
rises, bearing your lost mittens  
and the copybook between whose ruled veins

you had seen the sky at Gilgal  
keeping light wonderfully, a drama  
of finite scope, finite duration.  
The next day, your parents packed  
an overnight bag. Smoke  
widens at the tall brick stacks

east of you. They never returned.  
The boy who dashes past bends  
his head, but you have seen his eyes,  
blue or brown as your own. You lift  
your collar and cross one of the bridges,  
pass beneath the streetlamps, from light

to dark, from dark to light,  
to your own door. You've forgotten  
the paper, but the mittens are  
recollected and, safely, the copybook too.  
At your back, leaves turn over. The wind  
spills them carrying a Russian song.

The sun stood still; the moon halted  
A circus? the seacoast? Out of what  
other contradiction could you hope  
to render such implacable grief:  
*things lost were not lost,*  
*the heart was a place made fast.*

*A Place Made Fast* (Copper Canyon Press, 1982)

## THE LAND OF ISRAEL

And still you make your unexpected visits  
like the whiskered, rheumy-eyed old men  
in ear-curls who collected alms for *Eretz  
Yisrael*. They wouldn't come in.  
They stood on the step and held out cans that itched  
for our small coins. After they'd left  
garlic lingered with the sing-song Yiddish  
in which flowers are violets  
or roses, or have no names. Did Holy Soil  
for graves run out? the neighborhood too Gentile  
for them? I've forgotten.

I'm a continent away. One afternoon  
it all comes back. I watch the hawk  
on the telephone pole and try to drive home  
his whites and browns. When I look up  
I sit for a while, Father, in such repose  
you seem to have joined me. As the light fades  
my child babbles on till his Momma knows  
something landed. We choose  
little enough. How could I lose you?

*A Place Made Fast* (Copper Canyon Press, 1982)

## SHORES

Last night, when the voices of lovers  
rose from under a bridge, I heard steps,  
the separate life each of us keeps creating.

My son reminds me, stumbling in from sleep.  
His mother's paper cut-outs of Mt. Rainier  
and framed homage to Hokusai remind me:

there's a bridge behind which Fuji looms,  
crossing it, peasants with bundles of straw--  
tiny, burdened figures the artist included

for scale. The lovers never heard. Something  
flowed on, dark with all that water and  
the stiff selves the stars turn childishly above.

A moment brushed their lips, demanded,  
and the lovers, accepting, lay down  
beside each other as shores the future joins.

*A Measure of Islands* (Wesleyan University Press, forthcoming, 1990)

## EARLY OCTOBER WITH COWS

Across the field, stacks of hay-bales bulge  
from the rectangle of my neighbor's,  
propped with a jiggery of poles.

Cows that appeared by the fence one day  
last Spring, skittish, fly-ridden,  
lower their eyes and go on  
eating. Leaves rattle; long grasses rub

like insects' legs that hummed summer along.

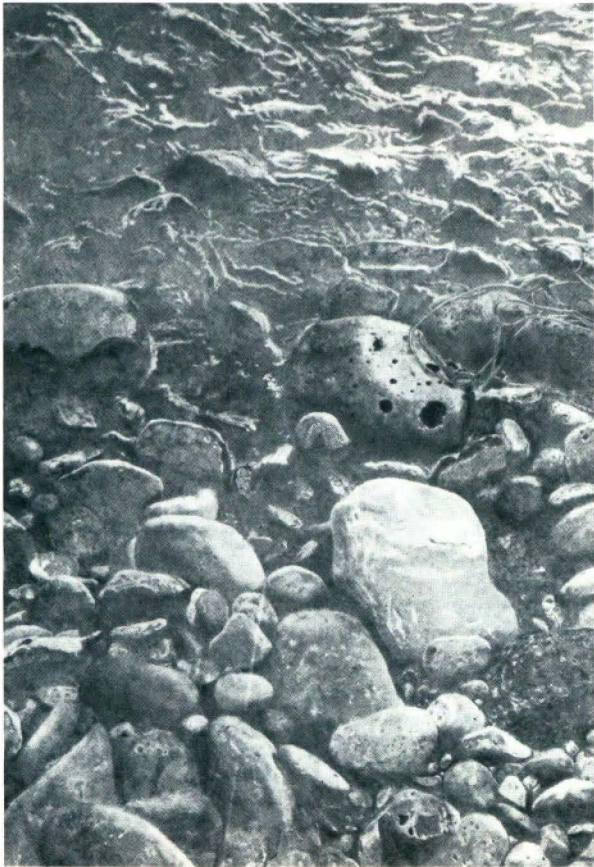
More cows are coming, black  
and white with thickening hides  
and fat slobbering tongues, the afternoon's  
few drowsy bees. The sun rakes leaves,  
its low slant across the field,  
red on the stacks of tottering hay. Soon

it's too cold to sit outside, too loud  
once the crows begin to mob.

An owl repeats the wind, a gate  
the loose click and grate of the earth  
turning. The cows drift toward winter,  
small, heavily laden ships  
rolling slightly in the chop and swell.

*The Measure of Islands* (Wesleyan University Press, forthcoming, 1990)



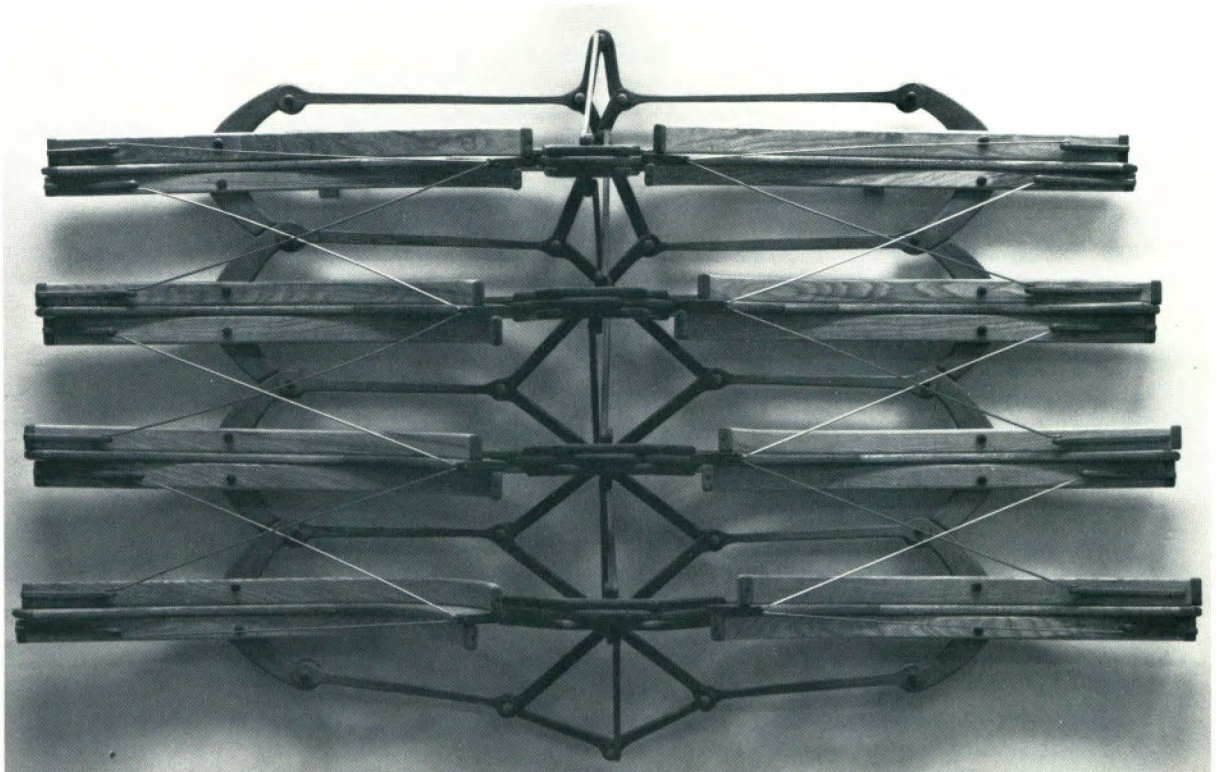


## Central's Art Collection Grows

The President's Associates of Central Washington University annually commissions a member of the art faculty to create an artwork for display on campus.

Reproduced here are three works purchased under this endowment.

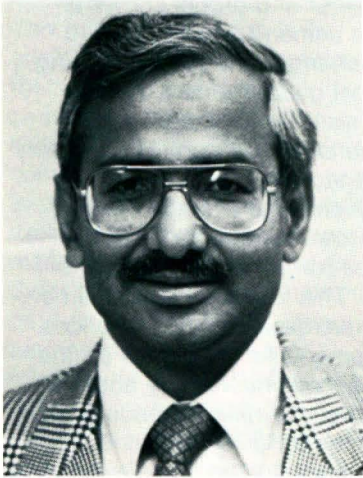
**STILLMAN, George:** "Columbia Basin Series-River Rocks," 1985, 28 x 40 inches.



**GALBRAITH, Gary:** "Kinetic Spatial Structure," 1986, 9 x 5 feet.



**SPETH, Constance: "Along The Vantage Highway," 1987, 51 x 24 inches.**



**Badiul A. Majumdar is Professor of Business Administration in the off-campus center located in the Tri-Cities. He has published extensively on international competitiveness among other topics.**

## Advertising, Prices and Incidence of Smoking

By **Badiul A. Majumdar**

The Public Health Cigarette Smoking Act passed by Congress in 1970 banned broadcast advertising of cigarettes. In recent years, several bills to eliminate the full tax deductibility of tobacco advertising expenses have been introduced in both the House and Senate. In June 1988, seven Congressmen, supported by the American Medical Association, sponsored a bill to prohibit the promotion of tobacco products altogether. It died in Committee, and a new bill, H.R. 1272, was introduced by Representative Mike Synar of Oklahoma and two colleagues. The proposed legislation is intended to reduce the incidence of smoking by making it difficult for tobacco companies to reach potential consumers. But, will it? Available scientific information indicates otherwise. In fact, it may be harmful to the very cause it is trying to help.

Two serious issues surround H.R. 1272. The first issue is the constitutionality of the proposed ban. Legal questions have already been raised whether advertising bans interfere with the doctrine of free speech as guaranteed by the First Amendment. The Supreme Court in its July 1, 1986 decision allowing Puerto Rico to ban certain advertising for casino gambling appears to have settled the matter in favor of the ban. At least that is what the proponents of the cigarette advertising ban think.

The most pertinent issue is whether the ban on advertising will actually decrease the sale and consumption of tobacco products, as Synar and others hope. Will it help usher in a smoking-free society? Economic theorists are skeptical and predict the opposite may be true. Empirical data appears to support the prediction.

Advertising is an important tool used for nonprice competition. Advertising in general falls into two categories: that intended to convey information about the product and that trying to attach an image to the product.

"Informative" advertising, as undertaken by department, drug and grocery stores each week, disseminates information about product quality and price. The basic purpose of this type of advertising is to increase the demand for the product.

"Image" advertising, most often found on television, billboards and in magazines, usually portrays an image associated with the consumption of a product. The image thus portrayed is intended to become a characteristic of the product, which will distinguish it from similar competing products. Image advertising often attempts to differentiate among products which are otherwise homogenous. In fact, this type of advertising is more prevalent in products which are not easily distinguishable on the basis of quality or any other concrete product attributes. Nevertheless, through such product differentiations--whether real or perceived--each advertiser tries to induce consumers to switch to its own brand, or at the very least to stay with its brand.

Oligopolistic markets dominated by a few producers often engage in image advertising. They have no incentive to compete on the basis of price; because of the concentrated market power, one producer cannot realistically drive another out of business through price competition. But they cannot ignore each other. Thus, rivalry or retaliation among producers is the important reason for engaging in image advertising, especially when they cannot otherwise differentiate the product. Such rivalry can sometimes escalate and competitors may advertise excessively. While informative as well as image advertising are usually combined, oligopolistic producers use image advertising basically as a defensive tool to

protect market shares. In other words, through advertising, each producer attempts to make the demand for its products stable or less elastic.

\* \* \* \* \*

Evidence from the tobacco products industry tends to confirm the oligopolistic rivalry hypothesis. Over the years numerous studies have been conducted by economists both here and abroad to examine the effects of advertising, price changes, and health warnings on the demand for cigarettes. These studies calculated various elasticities to determine the responsiveness of cigarette consumption to each of these factors. Elasticities calculate percentage changes in cigarette demands (Q) relative to percentage changes in other factors. For example, price elasticity of demand is  $\% \Delta Q / \% \Delta P$ , which shows the sensitivity of demand for cigarettes to price changes. If the value thus calculated is greater than one, the price elasticity of

demand for cigarettes is considered to be elastic (responsive to price changes); if equal to one, it is unitary elastic (equally responsive to price changes).

A review of the major studies published since 1970, which examine the relationship between advertising and cigarette consumption, shows a remarkable unanimity of findings. All of the studies, irrespective of their differences in data, scope, methodology and country origin, came to one common conclusion--that advertising elasticity of the demand for cigarettes is insignificant or low. That is, cigarette consumption is not responsive to aggregate advertising expenses. Thus, although advertising may affect the distribution of sales within the industry, it does not significantly change the total demand for cigarettes.

Most of the studies, by contrast, show that cigarette consumption is relatively more responsive to price changes. The study by Lynn

Schneider and others shows an elastic demand with respect to price changes. Robert Leu, using nominal price, found a unitary price elasticity of demand for Switzerland. Although the majority of the studies still show inelasticity, the average value of the price elasticity for all of the studies for the United States is -0.62. This indicates that given a 10% decrease in cigarette prices, the demand for cigarettes on the average will increase by about 6%. The effect of health warnings on the demand for cigarettes appears to be inconclusive.

The finding that the demand for cigarettes is insensitive to advertising has serious implications. All companies together could increase or decrease total advertising outlays without much change in total sales of tobacco products. In other words, the industry could cease advertising and still enjoy a similar level of sales.

Why, then, do the tobacco companies advertise? They advertise because their competitors advertise--the so-called oligopolistic reaction to protect market shares. Tobacco products are manufactured by a few companies in a highly concentrated oligopolistic market structure. Mutual interdependence is the trademark of oligopoly. If one company advertises and its competitors do not "react" or retaliate by continuing their own advertising, they will lose sales. Thus, each company advertises to attach an image to its products, hoping to differentiate its products from those of the rivals and, in the process, create brand loyalty.

Tobacco products manufacturers do not usually engage in price competition. Lowering prices by one company to strengthen its competitive position may trigger a retaliatory "price war" to the detriment of all companies. Besides, through price competition producers cannot deliver knockout punches to one another. More seriously, competitively induced price decreases will surely invite

### FINDINGS OF MAJOR STUDIES ON DEMAND FOR CIGARETTES

Authors (Year)	Period	Country	E L A S T I C I T Y		Health Score
			Price	Advertising	
Baltagi and Levin (1986)	1963-80	USA	-0.2	Insignificant	NA
Johnson (1986)	1961-83 1982-83	Australia	-0.1 -0.22	Insignificant Insignificant	Insignificant Insignificant
Leu (1984)	1954-81	Switzerland	-1.0	NA	Significant
Young(1984)	1929-73	UK	-0.41*	NA	NA
Witt and Pass (1983)	1955-75	UK	-0.21	Insignificant	Significant
Schneider et al. (1981)	1930-70	USA	-1.22	Insignificant	NA
Fujii (1980)	1929-73	USA	-0.48	Insignificant	Insignificant
Ashley et al. (1980)	1957-75	USA	NA	Insignificant	NA
Warner (1977)	1947-70	USA	-0.5	NA	Significant
Hamilton (1972)	1954 & 1965	USA	-0.51	Insignificant	Significant
Laughhunn and Lyon (1971)	1950 & 1968	USA	-0.81	NA	NA

\*Average for both increasing and decreasing prices.

more taxes. Tobacco products are also mostly alike, with little qualitative differences between them, which prevents the companies from competing on the basis of quality. Thus, tobacco companies use advertising--mainly image advertising--as their principal tool for nonprice competition. As a result, as Fredrick Scherer of Swarthmore College argues, they tend to over advertise, going beyond the point of profit maximizing level. Much of the industry's advertising may in effect be self-cancelling as producers try to win away consumers from one another with slogans like--"If you smoke, please try Carltons."

\* \* \* \* \*

What has been the effect of the broadcast advertising ban of cigarettes enacted in 1970? The ban has not affected the consumption of cigarettes appreciably. Between 1970 and 1983, the percentage of smokers among the adult population, 17 and over, has decreased by only 4.6 percent--from 36.7 percent to 32.1 percent. More seriously, in spite of increased health scares, desires to "clean living," and inconveniences created by smoking bans on many premises in the past decade, the incidence of smoking among some segments of the population has increased. As for the immediate effect of the broadcast cigarette advertising ban, a study by Sandra Teel, Jesse Teel and William Bearden, published in the *Journal of Marketing* in 1979, found that the percentage of adult smokers actually rose slightly following the ban.

This increased consumption may be attributable, via price elasticity, to declining retail prices of cigarettes during the period. The broadcast advertising ban enabled the tobacco product manufacturers to reduce the growth of their advertising expenses. For example, the industry was able to lower its advertising expenses by about \$80 million in 1971, approximately 40

percent of the total outlays for that year. This large savings in promotional costs was instrumental in keeping the cigarette prices relatively lower. As a result, in spite of an increasing tax burden and inflation-induced cost increases, retail prices of cigarettes in real terms declined about 10 percent between 1970 and 1978. Ironically, without the 1970 law, equal savings in promotional costs would have been possible only if the producers had entered into a collusive agreement or formed a cartel, both of which are illegal acts.

The 1970 law may have ended up hurting the very cause it intended to help in another way. Before the ban on broadcast advertising of cigarettes was enacted, the Federal Communications Commission, under its "fairness doctrine," required broadcasters to air anti-smoking messages free of cost to balance the broadcast time for paid advertising by the companies; this free time was about one-third of the paid advertising. Thus, the cigarette manufacturers, through their paid advertising, were indirectly subsidizing a substantial anti-smoking campaign. With the passage of the 1970 law, both types of advertising were stopped. It is not surprising that cigarette companies supported the legislation, which not only saved them millions of dollars in advertising expenses, but also brought an end to their indirect subsidy to a major anti-smoking campaign. Significantly, some studies found that the anti-smoking messages were more effective in discouraging smoking than the advertising which included the habit.

The newly proposed legislation may once again hinder the cause it is trying to help. Clearly it will serve the tobacco product manufacturers well. The legislation, if enacted, will solve for the producers the so-called "prisoner's dilemma"--a situation where two sequestered prisoners accused of committing a crime

could go free if neither would confess; would get two-year sentences each if both would confess; or would get two and ten-year terms, respectively, if one would confess and the other would not. (The critical assumptions here are that the prosecutor does not have adequate evidence to get a conviction, and neither of the prisoners knows what the other will do.) Like the prisoners who go free if allowed to coordinate their strategies, the companies will, according to available evidence, be able to eliminate all promotional costs without losing much in sales. They will be able to reap the most significant benefit of an illegal collusive arrangement or cartel--limiting promotional costs--without forming one. This will amount to nearly \$3 billion of windfall gains for companies each year.

The industry may again be able to pass these windfall gains on to consumers through lower prices. Companies will at least be able to keep the prices relatively lower by absorbing part of the increasing tax burden on tobacco products. If additional price reduction is possible, without inviting more taxes, it is likely to stimulate sales further since the consumption of tobacco products is relatively more responsive to price changes. Thus the proposed legislation may in effect provide the companies economic means to induce more people into smoking by selling tobacco products at relatively lower prices. It may even allow them to resume the old practice of selectively giving away cigarettes to the most vulnerable groups of potential customers.

The advertising ban, together with relative lower prices, will also discourage entry into the market. This will again serve the existing producers well since without

advertising, new brands of cigarettes cannot be introduced in the market by potential competitors. Such limitation of potential competition will result in inefficient utilization of resources.

## REFERENCES

- R. Ashley, C.W. Granger, and R. Schmalensee, "Advertising and Aggregate Consumption: An Analysis of Casualty," *Econometrica* 48 (July 1980): 1149-67
- Badi H. Baltagi and Dan Levin, "Estimating Dynamic Demand for Cigarettes Using Panel Data: The Effects of Bootlegging, Taxation and Advertising Reconsidered," *Review of Economics and Statistics* 68 (February 1986): 148-55.
- Edwin T. Fujii, "The Demand for Cigarettes: Further Empirical Evidence and its Implications for Public Policy," *Applied Economics* 12 (1980): 479-89.
- James L. Hamilton, "The Demand for Cigarettes: Advertising, the Health Scare, and the Cigarette Advertising Ban," *Review of Economics and Statistics* 54 November (1972): 401-11.
- Lester W. Johnson, "Advertising Expenditure and Aggregate Demand for Cigarettes in Australia," *Journal of International Advertising*, 5 (1986): 45-58.
- D.J. Laughhunn and H.L. Lyon, "The Feasibility of Tax Induced Price Increases as a Deterrent to Cigarette Consumption," *Journal of Business Administration* 3 (Fall 1971): 27-35.
- Robert E. Leu, "Anti-Smoking Publicity, Taxation, and the Demand for Cigarettes," *Journal of Health Economics* 3 (1984): 101-16.
- F.M. Scherer, *Industrial Market Structure and Economic Performance*, Second edition (Boston: Houghton Mifflin, 1980).
- Lynn Schneider, Benjamin Klein, and Kevin M. Murphy, "Governmental Regulation of Cigarette Health Information," *Journal of Law and Economics* 24 (December 1981): 575-612.
- Sandra J. Teel, Jesse E. Teel, and William O. Beardon, "Lessons Learned from the Broadcast Cigarette Advertising Ban," *Journal of Marketing* 43 (January 1979): 45-50.
- Kenneth E. Warner, "The Effects of the Anti-Smoking Campaign on Cigarette Consumption," *American Journal of Public Health* 67 (July 1977): 645-50.
- Stephen F. Witt and Christopher L. Pass, "Forecasting Cigarette Consumption: The Casual Model Approach," *International Journal of Social Economics* 10 (1983): 18-33.
- Trevor Young, "The Demand for Cigarettes: Alternative Specifications of Fjuii's Model," *Applied Economics* 15 (1983): 203-11.

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Robert Jacobs, Political Science  
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Sport in Soviet Society: Domestic  
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Cen-Tsong Lin, Mathematics  
Reliability Theory

Kenneth Merrell, Psychology  
Differentiating Learning Disabled and Low-  
Achieving Students: Behavioral,  
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Sensory Mediation of Ratings of Perceived  
Exertion in Trained and Untrained  
Cyclists at Low and Moderate Workloads

Robert Pacha, Biological Sciences  
Sedimentation and Recovery of *Giardia*  
Cysts from Water

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